

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P591162

Luminaire Tested: **CTN-CA8-230-722-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591162
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15087 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

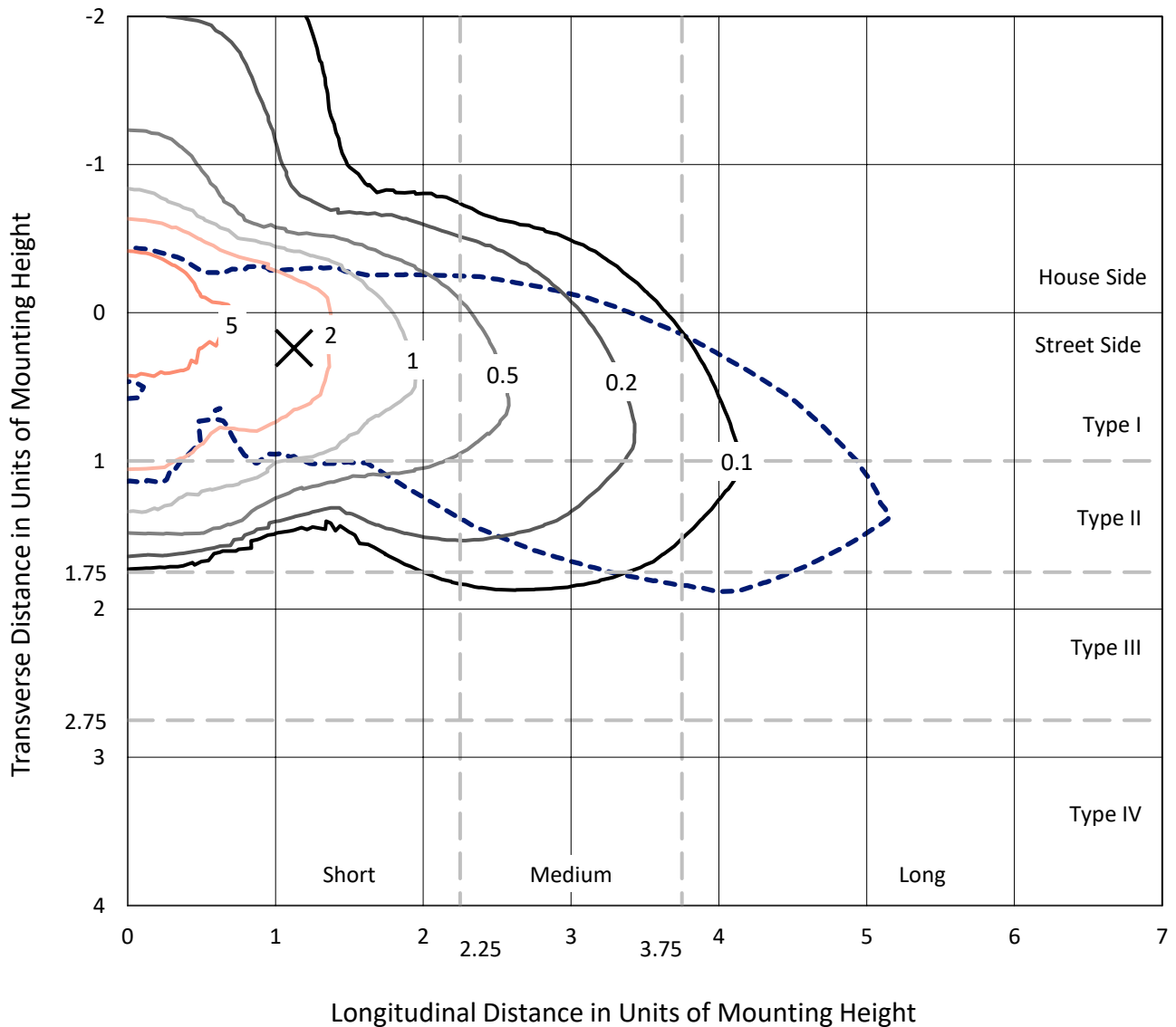
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

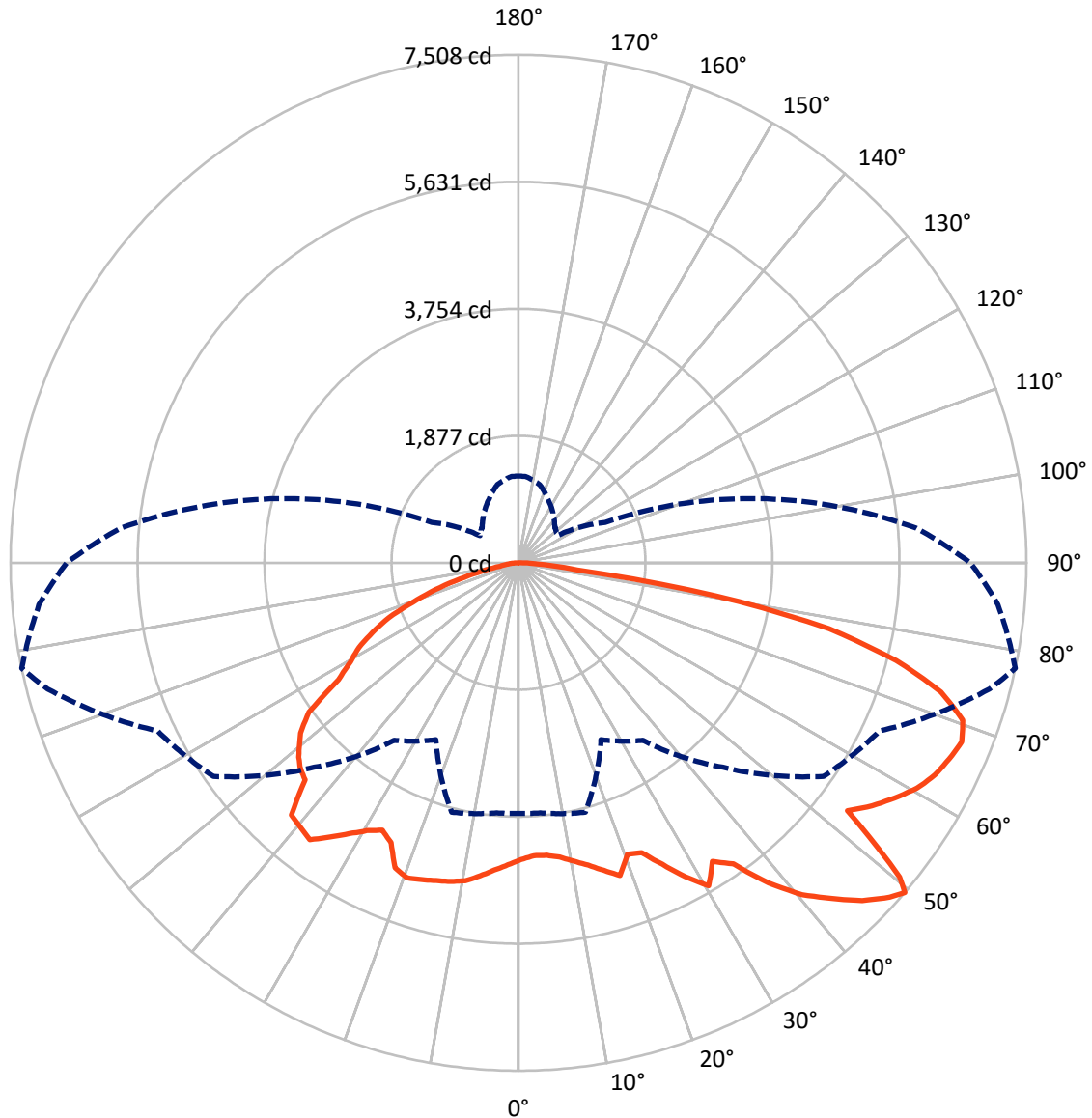
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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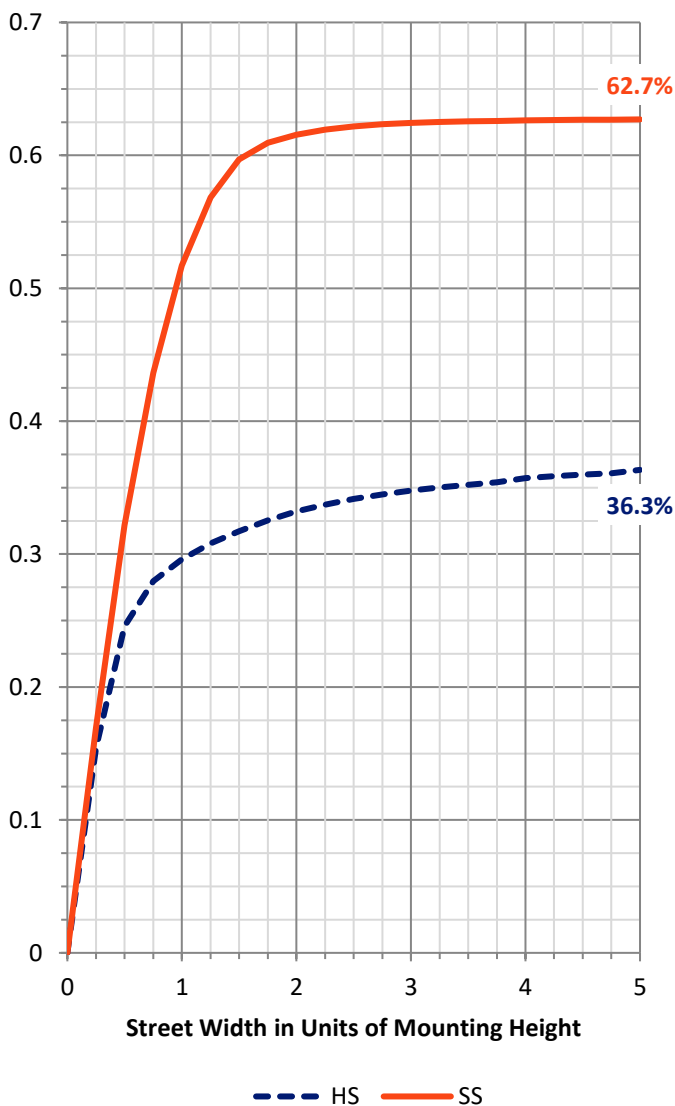
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5642.9	0.0	5642.9
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	9444.1	0.0	9444.1
	% Fixture	62.6	0.0	62.6
Total	Lumens	15087.0	0.0	15087.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	439.1	2.9
10°-20°	1348.0	8.9
20°-30°	1953.4	12.9
30°-40°	2400.3	15.9
40°-50°	2709.1	18.0
50°-60°	2574.4	17.1
60°-70°	1922.7	12.7
70°-80°	1427.9	9.5
80°-90°	312.0	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	15087.0	100.0
0°-180°	15087.0	100.0

Coefficient of Utilization



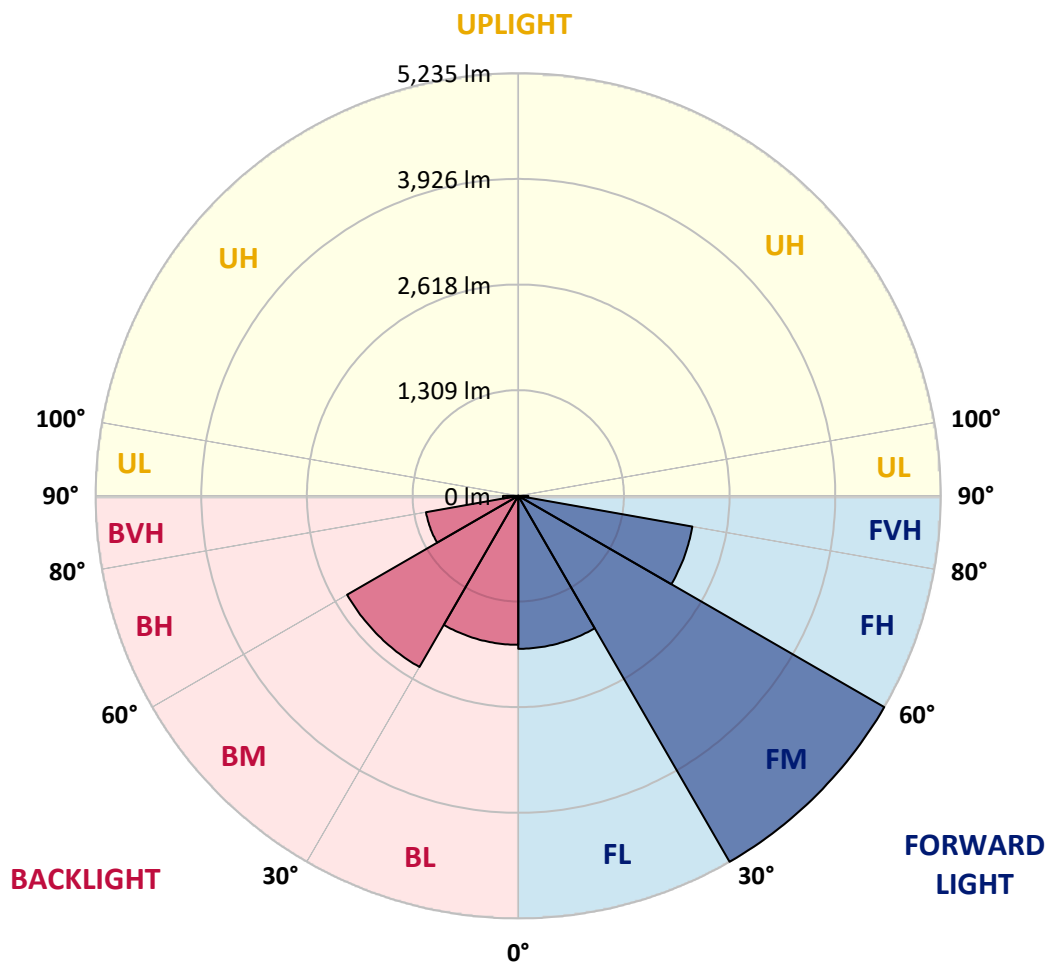
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1895.0	12.6			
FM (30°-60°)	5235.2	34.7			
FH (60°-80°)	2190.5	14.5			G2/5000
FVH (80°-90°)	123.3	0.8			G2/225
BL (0°-30°)	1845.5	12.2	B3/2500		
BM (30°-60°)	2448.6	16.2	B2/2500		
BH (60°-80°)	1160.1	7.7	B3/2500		G3/2500
BVH (80°-90°)	188.7	1.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2
2.5°	4292.4	4268.9	4275.3	4311.4	4241.9	4292.4	4271.6	4320.4	4336.7	4334.9	4405.3
5°	4327.6	4296.9	4306.0	4330.3	4254.5	4293.3	4277.1	4329.4	4343.0	4343.9	4439.6
7.5°	4456.7	4421.5	4412.5	4414.3	4343.0	4371.9	4330.3	4371.0	4395.3	4392.6	4499.2
10°	4644.5	4605.7	4585.9	4579.5	4492.9	4480.2	4429.7	4444.1	4480.2	4484.7	4593.1
12.5°	4837.8	4807.1	4778.2	4763.7	4644.5	4616.6	4542.5	4555.2	4582.2	4587.7	4700.5
15°	5008.4	4979.5	4975.0	4958.8	4837.8	4783.6	4694.2	4680.7	4701.4	4718.6	4817.0
17.5°	4841.4	4804.4	4780.9	4786.3	4724.9	4587.7	4532.6	4625.6	4798.9	4859.4	4952.4
20°	4370.1	4415.2	4396.2	4323.1	4257.2	4479.3	4432.4	4412.5	4519.9	4597.6	4822.4
22.5°	3839.2	3839.2	4019.7	4146.1	4171.4	4296.0	4552.5	4641.8	4653.6	4653.6	4588.6
25°	3419.3	3538.5	3844.6	4324.9	4327.6	4302.3	4373.7	4864.0	4945.2	4936.2	4826.9
27.5°	3581.8	3562.0	3767.8	4101.9	4574.1	4545.2	4406.2	4627.4	5297.3	5255.8	5115.9
30°	3725.4	3705.5	3742.5	4157.0	4644.5	4808.9	4689.7	4623.8	5316.3	5542.0	5458.1
32.5°	3859.9	3837.4	3879.8	3943.0	4419.7	5070.7	4986.7	4943.4	5045.4	5264.8	5845.4
35°	3968.3	3971.9	4020.6	4113.6	4332.1	4982.2	5284.7	5301.0	5479.7	5466.2	5759.6
37.5°	4048.6	4055.9	4098.3	4208.4	4289.7	4115.4	5568.2	5756.0	6031.4	6004.3	5788.5
40°	4053.1	4069.4	4154.3	4289.7	4385.4	3664.9	5515.9	6258.0	6530.7	6451.3	6183.1
42.5°	3969.2	3977.3	4119.1	4348.4	3328.1	3812.1	5115.0	6758.3	6880.1	6782.6	6484.7
45°	3894.2	3892.4	4044.1	4250.0	3144.8	3984.5	5104.1	6612.9	7201.6	7125.7	6745.6
47.5°	3788.6	3787.7	3935.8	3198.1	3184.5	4170.5	5373.2	5734.4	7467.9	7386.7	6983.1
49°	3703.7	3712.7	3817.5	2884.8	3202.6	4274.4	5504.1	5884.2	7207.0	7507.7	7114.9
50°	3657.7	3666.7	3411.2	2853.2	3208.0	4333.9	5572.7	5994.4	6486.5	7302.7	7199.8
52.5°	3448.2	3368.7	2644.6	2787.3	3209.8	4404.4	4791.7	6228.2	6182.2	6087.4	6816.9
55°	2077.6	2351.2	2394.5	2712.3	3180.9	3199.0	4680.7	6500.0	6480.2	6342.0	5869.8
57.5°	1259.6	1246.9	1849.2	2503.8	2130.0	2682.5	4864.0	6859.4	6742.0	6557.8	5970.0
60°	444.2	392.8	396.4	427.1	792.8	2007.2	3879.8	5165.5	6796.2	6767.3	6061.2
62.5°	35.2	33.4	33.4	35.2	50.6	753.9	3076.2	5181.8	6984.0	6909.0	6082.0
65°	4.5	4.5	4.5	9.9	26.2	681.7	3080.7	5265.7	7123.9	6995.7	6026.9
67.5°	0.0	0.0	2.7	7.2	20.8	603.1	2990.4	5315.4	7249.4	7067.9	5976.3
70°	0.0	0.0	1.8	6.3	18.1	499.3	2880.3	5358.7	7190.7	6965.9	5721.7
72.5°	0.0	0.0	1.8	5.4	15.3	329.6	2553.4	5038.2	6772.7	6528.9	5198.9
75°	0.0	0.0	1.8	4.5	14.4	187.8	2092.0	4451.3	6026.9	5768.7	4380.9
77.5°	0.0	0.0	0.9	3.6	12.6	102.9	1445.6	3684.8	4978.6	4695.1	3282.1
80°	0.0	0.0	0.9	3.6	11.7	70.4	657.3	2393.6	3318.2	2963.3	1798.6
82.5°	0.0	0.0	0.9	3.6	9.0	47.9	265.5	670.9	1026.6	877.6	572.4
85°	0.0	0.0	0.9	2.7	6.3	30.7	130.9	275.4	414.4	398.2	289.8
87.5°	0.0	0.0	0.9	2.7	4.5	9.0	38.8	90.3	161.6	164.3	123.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2	4387.2
2.5°	4438.7	4446.8	4473.9	4514.5	4520.8	4575.9	4566.9	4669.8	4679.8	4704.1	4731.2
5°	4485.6	4513.6	4575.0	4668.0	4735.7	4818.8	4810.7	4927.2	4938.9	4932.6	4974.1
7.5°	4554.3	4595.8	4691.5	4817.0	4839.6	4942.5	4929.0	5030.1	5031.9	5018.4	5059.0
10°	4654.5	4703.2	4791.7	4863.1	4917.2	4979.5	4970.5	5060.8	5051.8	5036.4	5078.8
12.5°	4751.1	4778.2	4832.4	4916.3	4926.3	4951.5	4936.2	5020.2	5011.1	4989.5	5029.2
15°	4837.8	4851.3	4852.2	4893.7	4871.2	4890.1	4849.5	4910.0	4889.2	4881.1	4909.1
17.5°	4948.8	4923.5	4886.5	4883.8	4807.1	4780.9	4715.9	4732.1	4688.8	4685.2	4700.5
20°	4963.3	5015.6	4909.1	4798.9	4669.8	4603.9	4481.1	4482.0	4433.3	4414.3	4423.3
22.5°	4567.8	4696.9	4935.3	4724.9	4505.5	4357.4	4199.4	4151.6	4059.5	4020.6	4005.3
25°	4722.2	4554.3	4536.2	4600.3	4292.4	4066.7	3837.4	3696.5	3587.2	3498.8	3505.1
27.5°	4961.5	4743.0	4301.4	4327.6	4024.3	3707.3	3361.5	3162.9	3051.8	2966.0	2956.1
30°	5278.4	5003.9	4352.0	3750.7	3716.4	3255.9	2831.5	2612.1	2499.2	2468.5	2449.6
32.5°	5672.1	5314.5	4465.8	3618.8	3075.3	2767.4	2291.6	2114.6	2061.3	2058.6	2037.0
35°	6139.8	5725.3	4570.5	3443.7	2651.8	2253.7	1831.1	1714.6	1722.7	1723.6	1741.7
37.5°	5840.9	6113.6	4701.4	3277.5	2239.2	1674.9	1472.6	1399.5	1423.0	1460.9	1479.0
40°	5845.4	5565.5	4854.0	3000.4	1739.9	1277.6	1152.1	1135.9	1236.1	1312.8	1331.8
42.5°	6080.2	5529.4	4798.0	2684.3	1274.0	971.5	959.8	1047.4	1191.8	1277.6	1293.0
45°	6332.1	5700.9	3985.4	2236.5	923.7	821.6	911.9	1033.8	1190.9	1282.1	1291.2
47.5°	6571.3	5809.3	3820.2	1748.0	742.2	774.7	897.5	1033.8	1197.3	1290.3	1295.7
49°	6677.9	5896.9	3666.7	1414.0	696.1	756.6	889.4	1035.6	1199.1	1278.5	1281.2
50°	6741.1	5946.5	3543.0	1311.0	673.6	744.9	885.8	1038.3	1196.4	1265.0	1267.7
52.5°	6839.5	6026.9	3258.6	1044.7	631.1	717.8	880.3	1049.2	1186.4	1227.0	1225.2
55°	5640.5	5633.2	3021.1	876.7	598.6	693.4	878.5	1058.2	1190.9	1232.5	1230.7
57.5°	5405.7	4625.6	2545.3	716.9	571.5	672.7	880.3	1071.7	1272.2	1344.4	1335.4
60°	5422.9	4555.2	2166.1	622.1	539.9	655.5	885.8	1132.2	1469.9	1543.1	1520.5
62.5°	5363.3	4382.7	1938.5	558.9	506.5	640.2	889.4	1216.2	1495.2	1501.5	1462.7
65°	5221.5	4166.0	1632.5	489.4	471.3	625.7	888.5	1246.9	1379.6	1328.2	1315.5
67.5°	4958.8	3935.8	1292.1	428.9	433.4	604.0	909.2	1193.6	1305.6	1264.1	1245.1
70°	4647.3	3444.6	911.0	372.9	399.1	579.7	906.5	1181.0	1266.8	1205.4	1179.2
72.5°	4092.9	2895.6	613.1	321.4	355.7	551.7	860.5	1143.1	1241.5	1200.9	1164.7
75°	3253.2	2167.0	355.7	277.2	313.3	511.0	815.3	1119.6	1255.0	1177.4	1102.4
77.5°	2223.9	1234.3	265.5	232.0	270.0	458.7	739.5	1041.1	1213.5	1146.7	1046.5
80°	996.8	446.0	203.2	188.7	226.6	372.0	637.5	921.0	1149.4	1149.4	1079.0
82.5°	396.4	280.8	140.9	148.1	185.1	283.5	504.7	794.6	1013.1	1059.1	1132.2
85°	223.9	164.3	90.3	107.4	141.8	219.4	367.5	617.6	825.3	914.6	991.4
87.5°	88.5	62.3	36.1	60.5	82.2	112.9	160.7	302.5	444.2	547.2	604.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)